

Remarks

Applicant respectfully requests reconsideration. Claims 1, 2, 5, 14, 15 and 18 were previously pending in this application. No claims have been amended and no new matter has been added.

Claim Objections

The Examiner objected to claims 1 and 2 for the use of brackets. The Examiner cited to MPEP 2234, paragraphs (2) and (f) as support for the objection.

Applicant respectfully disagrees with the rejection and traverses it. MPEP 2234 paragraphs (2) and (f) provide guidance on the manner of making amendments to claims in reexamination proceedings. The section provided for the manner of making amendments during normal prosecution is MPEP 714. This section makes no mention of a prohibition on the use of brackets in claims. It does mention the use of double bracketing for the deletion of text of 5 or fewer characters, or where strikethrough deletions would be difficult to understand.

The use of brackets for indicating the exon is typical in this art, and therefore appropriate since claims are to be understood by those of skill in the art. Accordingly, Applicant respectfully requests reconsideration of the objection to claims 1 and 2.

Rejection Under 35 U.S.C. § 103

The Examiner rejected claims 1, 2, 37, 38, 41 and 42 under 35 U.S.C. § 103(a) as being unpatentable over Pan et al. (Society for Neuroscience abstract, November 2001). Applicant respectfully traverses the rejection.

The claimed invention recites an isolated cell that recombinantly expresses an N-type calcium channel comprising a Ca_v2.2 subunit that comprises exon e37a (Ca_v2.2e[37a]). Exons e37b and e37a are described in the application as being “expressed in a mutually exclusive manner” (for example, see page 51, lines 26-28; page 10, lines 1-8; and Fig. 13).

In contrast, the Pan abstract describes RT-PCR analysis of 37a and 37b exons of the Ca_v2.2 subunit that “indicates the presence of three RNA variants in brain that, lack both exons, contain both exons, and contain only 37b.” (see sixth sentence of abstract) Pan does not describe a Ca_v2.2 subunit that contains only exon 37a. Moreover, Pan teaches that the “full length” Ca_v2.2 subunit contains the 37b exon. (see ninth sentence of abstract) Therefore, Pan does not teach or suggest to the person of skill in the art the claimed invention.

In fact, based on the teaching that the Ca_v2.2 subunit does not contain exon 37a alone, but only in combination with exon 37b, Pan teaches away from the claimed invention. Because Pan teaches away from the claimed invention, the person of skill in the art would not have a reason to modify Pan’s teaching in order to obtain the claimed invention. The Examiner has indicated that Pan’s disclosure of future work would have motivated the skilled person to test the claimed human splice variant. However, Pan’s earlier description of RT-PCR analysis of the expression of the Ca_v2.2 subunit splice variants, as described above, means that the skilled person would have no motivation to look for the claimed Ca_v2.2 subunit since Pan already provided evidence that there was no such splice variant. Rather than being motivated to try, Pan actually provides a motivation not to try. In addition, the description in the Pan abstract clearly would provide the skilled person with no expectation of success.

This is reinforced by the teaching in the specification that “In sharp contrast, we found expression of e37a highly restricted and only present at significant levels in dorsal root ganglia (Fig. 13b). Our results explain why Ca_v2.2e[37a] cDNAs were not isolated in earlier cloning efforts because tissue from dorsal root ganglia was not used....”

Accordingly, based on the teaching away by Pan, and the lack of motivation or expectation of success provided by Pan, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1, 2, 37, 38, 41 and 42 under 35 U.S.C. § 103(a).

Requirement for Information Under 37 C.F.R. § 105

The Examiner required Applicant and the assignee of the instant application to provide information deemed by the Examiner to be reasonably necessary to the examination of the application.

Regarding the Pan abstract, a presentation was made at the Society for Neuroscience meeting, but the information required to be submitted is not readily available to Applicant. 37 C.F.R. § 105(a)(1). It is the recollection of the inventors that the e37a sequence was not shown in the 2001 presentation, but the presentation did show the gene structure, as is described in the abstract.

Regarding the Pan abstract, a presentation was made at the Society for Neuroscience meeting, but the information required to be submitted is not readily available to Applicant. 37 C.F.R. § 105(a)(1).


Applicant also provides herewith in an Information Disclosure Statement a presentation of Bell et al., entitled "Analysis of N-type calcium current and $Ca_v2.2\alpha_1$ splice variants in nociceptive neurons", which Applicant asserts was the first public disclosure of the preferential expression of e37a in dorsal root ganglion.

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,
Lipscombe, et al., Applicant


John R. Van Amsterdam
Reg. No.: 40,212
Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210-2211
Telephone: (617) 646-8000

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